



**Association of Bay Area Governments  
Bay Area Air Quality Management District  
Metropolitan Transportation Commission**

Joseph P. Bort MetroCenter  
101 Eighth Street  
P.O. Box 2050  
Oakland, CA 94607-4756  
(510) 464-7942  
fax: (510) 433-5542  
tedd@abag.ca.gov  
[abag.ca.gov/jointpolicy/](http://abag.ca.gov/jointpolicy/)

## **Joint Policy Committee/Regional Planning Program**

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To: Joint Policy Committee

From: Regional Planning Program Director

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At its meeting of November 17<sup>th</sup>, 2006, the JPC commenced a six-month program to study the issue of climate change and to recommend an initial set of actions to be pursued jointly by the regional agencies. We are now four months into the program and at a point where an interim report is required. This is that report. It summarizes our work to date and lays out a preliminary set of organizing elements for a regional climate-change strategy.

In the next two months we hope to fill out the elements with additional detail and to sharpen the areas requiring policy decisions and imminent actions. We expect, however, that the region's approach to climate change will continue to evolve well beyond our "final" report in May. Climate change is a relatively simple physical phenomenon, but effectively addressing the issues associated with climate change may require some very complex and contentious political, social and economic choices. After May, there will remain many questions to be answered. Vice President Gore is correct: the will to act is a renewable resource. But we expect that resource may need to be renewed repeatedly over the next several years. Inevitably this region's climate-change strategy shall encounter a variety of real and imagined challenges, requiring not only renewed willpower but also a high capacity to learn and adapt. Thankfully, much of that learning and adaptation is already underway as evidenced by the high and growing public interest in the climate-change issue and an increased openness to unconventional solutions.

Our strategic thoughts rely heavily on ideas contributed by government and business leaders, key stakeholders, and members of the general public from throughout the Bay Area—first at the Air District's Climate Summit in November and then at two JPC-sponsored workshops in February. Our first workshop was on February 16<sup>th</sup> and was attended by over 150 people. To accommodate those who had to be turned away from the first workshop, we arranged for a second workshop on February 23<sup>rd</sup>. This was attended by nearly 100 people. In addition to those in physical attendance, there was a webcast audience which participated in the discussion via e-mail. Each workshop, lasting about three hours, involved active discussion among the participants and written submissions. As this memo is being written, staff is continuing to mine 298 pages of open-ended questionnaires, eighty-five comment cards with specific action ideas and a out ninety-eight pages of e-mails. These supplement and expand upon nearly one-hundred separate ideas documented from the breakout groups at the Air District's Climate Summit. All of this material is available for review on the [JPC's website](http://JPC's website).

From this rich resource of ideas, some general themes are beginning to emerge. These constitute the basic organizing elements of a strategy: a set of exploratory paths along which a number of potential actions are arrayed. As in a hiking guide, some of the paths can be categorized as “easy or moderate” in difficulty. Others may be identified as “treacherous,” or “only for the adventurous.” However, even the easy paths may have a few trip hazards, and some of the treacherous paths will have sections of level and stable ground. In the description that follows, the strategy elements are more-or-less ranked from relatively easy to relatively risky.

### The Goal: To Set an Example Which Others Will Follow

Regardless of the path, there is remarkable consensus around the destination. This destination is best captured in Jack Broadbent’s opening remarks at the November Climate Summit. JPC members will remember this as his final key message: “Working together, the Bay Area will be a model for California, the nation and the world.” This message resonated throughout our two workshops. There was an explicit recognition that if all the Bay Area did was limit its own carbon emissions, this would have a negligible impact on the global problem. This region’s real power over global climate change will rest in its ability to innovate and to set examples which others will rush to emulate. The regional agencies can lead in setting and disseminating those examples. If the Bay Area can continue to establish world-class models—as it has in technology, commerce, the arts and other areas of human endeavor—then it can have impact on the global environment far beyond its nominal emission reductions or climate adaptations.

### Strategy Element 1: Establish Priorities

Participants in our climate-change discussions submitted a veritable catalog of ideas covering a wide range of subjects and sectors. They were also candid in acknowledging that if we tried to pursue every good idea all at once, we would inevitably fail. It may be a climate crisis, but our resources are still limited, and we need to carefully choose those initiatives which will have the greatest impact relative to the monetary—and political—capital expended. While there is some obvious low-hanging fruit, many initiatives will require either significant expenditures or significant tradeoffs relative to other objectives. It is imperative that the regional agencies do our homework and select these with caution, applying at least a rudimentary, and in some cases a rigorous, benefit/cost calculus.

In making our selection, we would be wise to look first at those initiatives which offer “co-benefits,” that not only reduce carbon emissions or facilitate adaptation but simultaneously advance other regional objectives. An obvious example is source control which mitigates CO<sub>2</sub> coincidentally with reducing particulate matter or ozone. A less obvious example is smart growth, which can reduce carbon by reducing the need to travel while also helping to revitalize distressed communities and improving public health by providing more opportunities to walk and bicycle.

Our participants also reminded us that we needed to not just be conscious of effectiveness and efficiency; that, as we identified climate initiatives, we also had to be sensitive to equity issues. As in New Orleans after Katrina, those most affected by climate change will be those with the fewest resources to cope. As well, many of our well-intentioned mitigations may have differential and devastating impacts on the poor. For example, increased fuel prices are frequently advo-

cated as a way of reducing unnecessary and inefficient driving. For most of us, higher prices might cause us to reduce discretionary driving or switch to a more efficient vehicle. To the poor family, which depends on an older car to get to a distant work location, it could involve a choice between gas and food.

### Strategy Element 2: Increase Public Awareness

This is the “beginner” hiking path. It builds on initiatives already underway among the regional agencies, particularly at the Air District, it acknowledges that aggregated individual behaviors can make a big difference, and it recognizes that for most media the Bay Area is a single communications market, where information may be most effectively and efficiently delivered at the regional level and through the regional agencies. Awareness is such an obvious and urgent regional action that it may be proceed in advance of other strategy elements.

Participants urged us to deliver two principal messages:

1. Climate change is an urgent issue, both globally and locally (Our slide show on local implications seemed to be revelatory to many.);
2. There are many actions which we can take as individuals, as businesses, as groups and associations, as cities and counties, and as a region. These range from the simple and easy, like replacing our light bulbs or inflating our tires, to the more difficult, like reshaping the way the region grows.

However, participants also cautioned us against being too clever, too preachy and too monochromatic. They encouraged us to build relevant messages from a grassroots, inclusive process, noting the diversity of communities and interests in the Bay Area. And they suggested putting an emphasis on young people and the schools. The next generation really has a vested interest in this issue, and it may be easier to build new habits than extinguish old ones.

Among the most compelling awareness ideas was the suggestion that we should be providing people with nearly real-time feedback on the carbon emission implications of their choices and behaviors. Imagine, for example, the morning radio traffic report which totals potential carbon emissions based on congestion conditions; or the 511 response that goes something like this: “That trip should take you forty minutes and will result in about forty pounds of carbon dioxide,” or more positively “By choosing to take the bus for that trip, you will reduce your potential carbon impact by forty pounds.”

### Strategy Element 3: Provide Assistance

This, too, is nearly a no-brainer. It is based on regional economies of scale and on avoiding duplication of effort and invention. The regional agencies can collectivize a number of activities to assist local governments and other organizations in assessing and undertaking climate initiatives. Examples of regional assistance include:

- The standardization of carbon inventory procedures and the dissemination of inventory data and tools (as underway at the Air District);
- The establishment and maintenance of a clearinghouse for ideas, experiences and best practices;
- The certification of carbon reduction plans (building on ABAG's Green Business program);
- The development of model codes and other tools for climate protection and for adaptation;
- The collective retention and delivery of specialized consultant services;
- The funding of demonstration projects (as through the Air District's nascent climate innovation grant program or a variation on MTC's TLC program).

One interesting suggestion was the coordination of innovation among multiple local governments so that new local climate practices or laws appear nearly simultaneously across the region or at least across sub-regions. This would pool some of the risks of being first and would mitigate the tendency of affected parties to shop among jurisdictions for the most favorable climate-related regulations.

#### Strategy Element 4: Reduce Unnecessary Driving

Participants at both the Climate Summit and at our workshops were acutely aware that fully one-half of the Bay Area's greenhouse gas emissions result from transportation sources and mostly from private on-road vehicles. They also understood that technological improvements (e.g., new engines, smaller and lighter cars, emission control devices, and alternative fuels) were likely at best to take us only half way toward the State's aggressive greenhouse-gas targets for this sector. Therefore, there was a high emphasis on changing driving behavior, particularly on decreasing unnecessary trips and reducing excessively long trip lengths. A number of suggestions were proffered; two general categories of regional policy stand out: (1) smart growth and (2) price signals.

Most participants acknowledged that smart growth was a relatively slow, incremental solution and was unlikely to have a significant impact on the State's shorter-term emission targets. However, they did persuasively contend that redistributing growth to promote accessibility via transit and via propinquity could be immensely powerful in the longer term (say over fifty years). They also argued that smart growth was one of a few potential solutions which promised to help reduce greenhouse gases without significant compromises to our present quality of life. Indeed, smart growth offers many co-benefits (e.g., more housing choices, more lively and vital neighborhoods, and a generally more secure environment) which could actually improve the livability of the Bay Area. We were also reminded that just because smart-growth was a long-term proposition did not mean that urgent action on this front was not required now. Because smart-growth occurs cumulatively, actions taken today are at least as important as actions taken twenty years from now. In fact, current actions may be significantly more important, as they can set positive examples which then play out in expanding emulations over multiple years. There was a

great deal of support exhibited for the regional agencies' *FOCUS* efforts and encouragement for accelerating these through regional incentives.

To complement and encourage the redistribution of growth, many encouraged the region to send stronger price signals to vehicle drivers. Pricing was identified as a strategy which might have very substantial effects even in the short term. The idea came in many flavors: increased gas taxes and fees ("public goods charges"); vehicle registration fees, surcharges and rebates (applied differentially by vehicle type and use); higher tolls; congestion pricing (including congested area entrance charges as in London and hot lanes as in Southern California); and higher parking rates (perhaps implemented through a regional parking space tax). Most of these ideas would require State legislation permitting the region to take the appropriate action.

In the ideal world as envisioned by our workshop participants, road pricing and similar disincentives to driving would be accompanied by measures which made the alternatives, particularly transit, more competitive and attractive. Many suggested free transit, but we suspect that fare price may be one of the least powerful impediments to transit ridership. Convenience factors, such as those being addressed by MTC through TransLink® and other connectivity efforts, may be way more important. Nevertheless, we agree that transit, along with pedestrian and bike improvements, will need to be a big part of how we confront climate change in this region.

As we consider alternatives in the area of pricing and mode competitiveness, it is critically important to remember that not all segments of society will be affected equally. Consumption taxes and fees on basic commodities, like access, can be highly regressive and we do not yet provide the full range of choices that will allow everyone to respond without some significant hardships, particularly for many of the currently disadvantaged. The economics of transportation and development is highly charged with equity issues; and if the Bay Area is to be a model, it needs to continue to develop policy with high sensitivity to these issues.

#### Strategy Element 5: Prepare to Adapt

Regardless of what we do over the next several years to reduce carbon emissions, global warming is well underway, some consequences are inevitable, and the Bay Area *will* experience moderate to severe impacts. While neither attendees at the Climate Summit nor at the workshop emphasized adaptation as a priority, many did acknowledge that we will still need to begin preparing at minimum for changes in sea level, average temperatures, and potable water supply. We will also have to start anticipating other potential impacts which are not presently on our radar.

Adaptation will require new and more severe ground-level air-pollution strategies, as higher temperatures will cook more ozone. Our local governments and water districts may have to implement very restrictive water conservation measures to compensate for the loss in snow pack. And we will have to reassess our whole approach to development and capital investment near the shoreline.

BCDC has commenced a reconsideration of its mandate under conditions of sea-level rise. Its thoughts and processes are illustrative of the potential magnitude of the adaptation task. Using GIS data, BCDC has prepared maps which show that a one-meter increase in the level of the Bay

could flood over 200 square miles of land around the Bay. The value of the development threatened with inundation could exceed \$100 billion. The Bay Commission next proposes to determine more precisely the monetary value of all economic and environmental resources within the area expected to be impacted; estimate the cost of protecting these resources through the construction of levees, sea walls or raising the elevation of infrastructure; decide whether it might be more cost-effective to remove or relocate some developed areas rather than protect them; and develop a regional vision for San Francisco Bay that would accommodate projected sea level rise and protect the most significant economic, environmental, aesthetic, social, cultural and historic resources from flooding while continuing to enhance the biological productivity of the estuary. That is a lot of consequential and expensive work.

#### Strategy Element 6: Change the Rules

In our hiking guide, the description of this strategy path might contain words like “largely unexplored territory; may contain some steep inclines, dangerous drop-offs, loose footing, and rattle snakes—but may also lead to some worthy and occasionally spectacular vistas.” This is the strategy element that more than any other recognizes that “business as usual” will not be good enough, that some paradigm shifts or a sea changes may be required to model truly effective climate protection—that the rules by which we plan and govern this region may have to be fundamentally altered. Some, but not all, of these changes are likely to be difficult and controversial; others are mostly just different. Regardless of degree of unconventionality, now is the time to begin reconsidering how we as a region deal with many common and not-so-common things. We may find some ideas which, with some planning, are more doable and acceptable than they at first appear.

Staff is still very much in mid-stream in cataloging, categorizing and understanding the rule-change ideas presented at the Summit and at our workshops. Here are a very few examples presented without judgment to illustrate the range of possibilities:

- Make CO<sub>2</sub> impact the primary criterion in CEQA reviews (The regional agencies might be able to readily trigger this requirement by all including a critical question in their comment letters prepared in response to CEQA project documents.);
- Apply life-cycle costing to all capital projects (i.e., include the costs of long-term operation—particularly those related to energy consumption—in the calculation and reporting of project costs);
- De-emphasize congestion relief as a transportation investment priority (i.e., use congestion to meter travel growth and mitigate induced development, particularly sprawl);
- Encourage energy-efficient development with sliding-scale permit fees and rebates;
- Return the region’s freeways to a maximum fifty-five-mile-per-hour speed limit, as it was following the seventies’ energy crisis;

- Universalize multi-modal level-of-service (LOS) standards (based on people moving capacity) as an alternative to those based purely on automobile traffic;
- Condition transportation project funding on CO<sub>2</sub> emissions impact;
- Impose an indirect-source development fee as in the San Joaquin air basin.

Over the next few weeks, we anticipate adding many other examples to this list. We will then work with the JPC to identify a process for selecting the most promising for further analysis and discussion.

### Conclusion

While some skeptics remain, few of us now doubt that the world's climate is changing—and changing very rapidly. Changing even more quickly is the climate of public interest and policy discourse on this matter. Global warming now commands a level of intensity, urgency and seriousness which a few months ago would have been nearly unthinkable. Public support to take decisive action is growing; and, through the examples they set, the Bay Area's regional agencies are uniquely poised to lead the region, the state, the nation and the world.